

Listing and Amendments to the Claims

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This listing of claims will replace the claims that were published in the PCT Application and annexed to the International Preliminary Report on Patentability:

1. (currently amended) An apparatus ~~(20)~~, comprising:  
processing means ~~(21, 24, 25, 26)~~ for receiving broadcast signals and processing said received signals to generate processed analog signals;  
receiving means ~~(27)~~ for receiving a request signal from a device ~~(30)~~ via a transmission medium connecting said apparatus ~~(20)~~ and said device ~~(30)~~, wherein said processed analog signals are provided to said device ~~(30)~~ via said transmission medium responsive to said request signal, further wherein said request signal specifies a desired processed analog signal by identifying a program; and  
control means ~~(27)~~ for detecting an available frequency band on said transmission medium, wherein said available frequency band is used to provide said processed analog signals to said device ~~(30)~~, thereby causing said transmission medium to be shared between said processed analog signals and cable broadcast signals distributed over said transmission medium.
2. (currently amended) The apparatus ~~(20)~~ of claim 1, wherein said transmission medium includes RG-59 cable.
3. (currently amended) The apparatus ~~(20)~~ of claim 1, wherein said broadcast signals are transmitted from a satellite source.
4. (currently amended) The apparatus ~~(20)~~ of claim 1, wherein said broadcast signals are transmitted from a digital terrestrial source.
5. (currently amended) The apparatus ~~(20)~~ of claim 1, wherein said control means ~~(27)~~ scans a plurality of frequency bands on said transmission medium to detect said available frequency band.

6. (currently amended) The apparatus ~~(20)~~ of claim 1, wherein said control means ~~(27)~~ detects said available frequency band based on a user input which selects said available frequency band.

7. (currently amended) The apparatus ~~(20)~~ of claim 1, wherein said processing means ~~(21, 24, 25, 26)~~ comprises front-end processing means ~~(21)~~ for extracting a desired digital transport stream from said received signals responsive to said request signal.

8. (currently amended) The apparatus ~~(20)~~ of claim 8, wherein said processing means ~~(21, 24, 25, 26)~~ further comprises:

encoding means ~~(24)~~ for encoding said desired digital transport stream with error correction data to generate encoded digital signals;

digital-to-analog converting means ~~(25)~~ for converting said encoded digital signals to analog baseband signals; and

modulating means ~~(26)~~ for modulating said analog baseband signals to generate said processed analog signals.

9. (currently amended) The apparatus ~~(20)~~ of claim 1, wherein said receiving means ~~(27)~~ comprises demodulating means ~~(27)~~ for demodulating said request signal.

10. (currently amended) A method ~~(600)~~ for distributing signals from a gateway apparatus to a client device, comprising steps of:

receiving broadcast signals ~~(610)~~ from a broadcast source;

receiving a request signal from said client device via a transmission medium connecting said gateway apparatus and said client device ~~(620)~~, said request signal indicative of a desired digital transport stream;

processing said received signals to generate processed analog signals ~~(650)~~;

detecting an available frequency band on said transmission medium, wherein said available frequency band is used to provide said processed analog signals to said client device ~~(30)~~; and

providing said processed analog signals to said client device via said transmission medium responsive to said request signal ~~(660)~~, thereby causing said

transmission medium to be shared between said processed analog signals and cable broadcast signals distributed over said transmission medium, wherein said request signal specifies a desired processed analog signal by identifying a program.

11. (currently amended) The method ~~(600)~~ of claim 10, wherein said transmission medium includes RG-59 cable.

12. (currently amended) The method ~~(600)~~ of claim 10, wherein said broadcast signals are transmitted from a satellite source.

13. (currently amended) The method ~~(600)~~ of claim 10, wherein said broadcast signals are transmitted from a digital terrestrial source.

14. (currently amended) The method ~~(600)~~ of claim 10, wherein said detecting step ~~(640)~~ includes scanning a plurality of frequency bands on said transmission medium to identify said available frequency band.

15. (currently amended) The method ~~(600)~~ of claim 10, wherein said detecting step ~~(640)~~ is performed based on a user input which selects said available frequency band.

16. (currently amended) The method ~~(600)~~ of claim 10, further comprising steps of:

extracting a desired digital transport stream from said received signals responsive to said request signal ~~(630)~~;

encoding said desired digital transport stream with error correction data to generate encoded digital signals ~~(652)~~;

converting said encoded digital signals to analog baseband signals ~~(654)~~; and

modulating said analog baseband signals to generate said processed analog signals ~~(656)~~.

17. (currently amended) A client device ~~(30)~~, comprising:
- a front-end processor ~~(31)~~—operative to process analog signals provided from an apparatus ~~(20)~~—via a transmission medium connecting said apparatus ~~(20)~~—and said client device ~~(30)~~;
  - a back channel processor ~~(32)~~—operative to generate a request signal responsive to a user input, wherein said request signal is provided to said apparatus ~~(20)~~—via said transmission medium and causes said apparatus ~~(20)~~—to provide said processed analog signals to said client device ~~(30)~~, further wherein said request signal specifies a desired processed analog signal by identifying a program; and
  - control means ~~(27)~~—for detecting an available frequency band on said transmission medium, wherein said available frequency band is used to provide said processed analog signals to said device ~~(30)~~, thereby causing said transmission medium to be shared between said processed analog signals and cable broadcast signals distributed over said transmission medium.
18. (currently amended) The client device ~~(30)~~—of claim 17, wherein said transmission medium includes RG-59 cable.
19. (currently amended) The client device ~~(30)~~—of claim 17, wherein:
- said front-end processor ~~(31)~~—processes said analog signals to generate a digital transport stream, and further comprising:
  - an A/V processor ~~(34)~~—operative to process said digital transport stream to generate output signals.
20. (currently amended) The client device ~~(30)~~—of claim 19, wherein said back channel processor ~~(32)~~—scans a plurality of frequency bands on said transmission medium to detect said available frequency band.
21. (currently amended) The client device ~~(30)~~—of claim 19, wherein said back channel processor ~~(32)~~—detects said available frequency band based on a user input which selects said available frequency band.

22. (new) A gateway apparatus, comprising:
- a front-end processor operative to receive signals from a broadcast source and process said received signals to extract a desired digital transport stream;
  - an encoder operative to encode said desired digital transport stream with error correction data to generate encoded digital signals;
  - a digital-to-analog converter operative to convert said encoded digital signals to analog baseband signals;
  - a modulator operative to modulate said analog baseband signals to generate processed analog signals, wherein said processed analog signals are provided to a client device via a coaxial cable connecting said gateway apparatus and said client device, further wherein said client device requests a desired processed analog signal by identifying a program; and
  - a controller operative to detect an available frequency band on said coaxial cable, wherein said available frequency band is used to provide said processed analog signals to said client device, thereby causing said coaxial cable to be shared between said processed analog signals and cable broadcast signals distributed over said coaxial cable.
23. (new) The gateway apparatus of claim 22, wherein said coaxial cable includes RG-59 cable.
24. (new) The gateway apparatus of claim 22, wherein said broadcast source includes a satellite source.
25. (new) The gateway apparatus of claim 22, wherein said broadcast source includes a digital terrestrial source.
26. (new) The gateway apparatus of claim 22, wherein said controller scans a plurality of frequency bands on said coaxial cable to detect said available frequency band.

27. (new) The gateway apparatus of claim 22, wherein said controller detects said available frequency band based on a user input which selects said available frequency band.

28. (new) The gateway apparatus of claim 22, wherein said front-end processor extracts said desired digital transport stream responsive to said request by said client device provided to said gateway apparatus via said coaxial cable.

29. (new) The apparatus according to claim 1, wherein said apparatus is a gateway apparatus.

30. (new) The apparatus according to claim 1, wherein said processing means further comprises:

first processing means for receiving broadcast signals and processing said received broadcast signals to extract a desired digital transport stream; and

second processing means for processing said desired digital transport stream to generate said processed analog signals.